

### **REMARKS**

The Office Action mailed August 10, 2007 has been received and reviewed. Claims 1-28 are pending. Reconsideration of the rejection of all claims and allowance are earnestly solicited in view of the following remarks.

#### **Rejections based on 35 U.S.C. § 103**

##### **A.) Applicable Authority**

The basic requirements of a *prima facie* case of obviousness are summarized in MPEP §2143 through §2143.03. In order “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)”. MPEP §2143. Further, in establishing a *prima facie* case of obviousness, the initial burden is placed on the Examiner. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 972, (Bd. Pat App. & Inter. 1985).” *Id.* See also MPEP §706.02(j) and §2142. Recently, the Supreme Court

elaborated, at pages 13-14 of *KSR*, it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application]." *KSR v. Teleflex*, 127 S. Ct. 1727.

B.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 ("Ciscon") in view of U.S. Publication No. 2004/0181476 ("Smith").

Claims 1-4, 9-10, 13-15, 17, 23-24, and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ciscon et al. (U.S. Publication No. 2002/0004827), in view of Smith et al. (U.S. Publication No. 2004/0181476). Applicants respectfully traverse this rejection because the prior art does not teach or suggest each limitation of independent claims 1, 13, 14 and 23.

Independent claim 1 is directed to a carrier virtual network interface system to allow an accessing telecommunication network managed by a network management system to indirectly manage the layer one resources dedicated to a carrier virtual network. The system includes a dedicating network interpretation layer that interfaces with the network management system of a dedicating telecommunications network, the dedicating network interpretation layer converting network information regarding layer one resources dedicated to the carrier virtual network from the dedicating telecommunication network to messages *for transmission to* the network management system of the accessing telecommunication network and converting messages from the network management system of the accessing telecommunication network to

network instructions for use by the network management system of the dedicating telecommunication network.

Unlike Cisco and Smith, the claimed invention of independent claim 1 includes a dedicating network interpretation layer converting network information to messages *for transmission to* the network management system of the *accessing* telecommunication network. Cisco, on the other hand, discusses a network monitor that is utilized to monitor a network element, i.e., a node. *See* Cisco, at ¶ [0047]. In Cisco, network elements that are monitored by the network monitor comprise network elements within the same network. *See id.* at ¶ [0047] (providing examples where communication links are used to interconnect network elements with other network elements in the same network).

While Cisco monitors network elements, it is respectfully submitted that Cisco does not disclose converting network information to messages *for transmission to* the network management system of the *accessing* telecommunication network. Cisco monitors network elements within the same network. As such, Cisco fails to prepare messages for transmission to another telecommunication network. Accordingly, Cisco does not teach or suggest converting network information to messages for transmission to the network management system of the *accessing* telecommunication network.

Further, Smith fails to overcome the deficiencies of Cisco. Smith discusses that “[a]ll of the communications between the client and server applications may be achieved using messages in any of the interprocess messaging formats well known in the art . . . .” *See* Smith at ¶ [0039]. While Smith mentions communications utilizing messages, Smith fails to disclose converting network information to messages *for transmission to* the network management system of the *accessing* telecommunication network, as recited in independent claim 1.

Independent claim 13 is directed to a carrier virtual network interface system to allow an accessing telecommunication network managed by a network management system to indirectly manage the layer one resource dedicated to a carrier virtual network. The system includes a communication layer, the communication layer transmitting messages having a predetermined format between the dedicating network interpretation layer and the accessing network interpretation layer, whereby the network management system of the accessing telecommunication network *indirectly manages* the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network.

Cisco, on the other hand, discloses “a method for providing broadband communications over a multi-layered network having a plurality of Open System Interconnection (OSI) Reference Model layers functioning therein. . . .” *See* Cisco, Abstract. Cisco discusses a network monitor that is utilized to monitor a network element, i.e., a node, and a resource database that organizes communication link functionality and network elements based on the OSI reference model. *See* Cisco, at ¶¶ [0047]; [0049]. While Cisco discloses monitoring and organizing a network element, it is respectfully submitted that Cisco does not disclose the network management system of an *accessing* telecommunication network *indirectly managing* the layer one resources of a *dedicating* telecommunication network dedicated to the carrier virtual network, as recited in independent claim 13. *See id.* Rather, Cisco discloses monitoring and organizing a network element *within* the network, as opposed to *indirectly managing* layer one resources of *another* telecommunication network. There is no disclosure of indirectly managing, as recited in claim 13, the layer one resources of a dedicating telecommunication network dedicated to the carrier virtual network.

Independent claim 14 is directed to a method for interfacing the management of layer one telecommunication resources in a carrier virtual network. The method includes, among other things, issuing network instructions for the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network from the network management system of the accessing telecommunication network.

Unlike Ciscon and Smith, the claimed invention of independent claim 14 includes issuing network instructions for the layer one resources of the dedicating telecommunication network. By contrast, Ciscon fails to disclose issuing any such network instructions for layer one resources. Rather, Ciscon discusses a network monitor that is utilized to monitor a network element, i.e., a node, and a resource database that organizes communication link functionality and network elements based on the OSI reference model. *See* Ciscon, at ¶¶ [0047]; [0049].

While Ciscon monitors and organizes a *network element*, it is respectfully submitted that Ciscon does not disclose issuing *network instructions* for *layer one resources*. Applicants respectfully submit that network instructions for layer one resources differ from monitoring and organizing a network element. Accordingly, Ciscon does not teach or suggest issuing network instructions for layer one resources.

Further, Smith fails to overcome the deficiencies of Ciscon. Smith discusses that “[a]ll of the communications between the client and server applications may be achieved using messages in any of the interprocess messaging formats well known in the art . . . .” *See* Smith, at ¶ [0039]. While Smith mentions communications utilizing messages, Smith fails to disclose issuing network instructions for layer one resources, as recited in independent claim 14.

Independent claim 23 is directed to interfacing the management of layer one telecommunication resources in a carrier virtual network. More specifically, independent claim

23 recites, among other things, converting network information regarding layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network to messages having a predetermined format.

Unlike Cisco and Smith, the claimed invention of independent claim 23 includes layer one resources of the dedicating telecommunication network *dedicated to the carrier virtual network*. A carrier virtual network comprises a network of shared layer one telecommunication resources. *See Specification* at ¶ [0034]. Such a carrier virtual network allows a telecommunication network to access the layer one resources of another telecommunication network to provide telecommunication services. *Id.* at ¶ [0014]. Accordingly, a carrier virtual network enables a telecommunication network to use under utilized and unutilized layer one telecommunication resources of other service providers' networks. *Id.* at ¶ [0014].

Cisco, on the other hand, discloses a control system "capable of recognizing that communication resources (e.g., routers, fiber lines, etc.) may be shared or exclusive. . . . For example, the network monitor . . . may need to combine information from communication resources at multiple OSI layers or combine information from communication resources in the same OSI layer."

It is respectfully submitted, however, that Cisco does not disclose a dedicating a portion of layer one resources to a carrier virtual network, as recited in independent claim 23. Rather, Cisco merely mentions that a control system is capable of recognizing that communication resources may be shared. Recognizing that communication resources may be shared, however, does not teach or suggest dedicating a portion of layer one resources to a carrier virtual network that allows a telecommunication network to access the layer one resources of another telecommunication network to provide telecommunication services.

Further, Smith fails to overcome the deficiencies of Cison. Smith discusses “identifying and mapping the business-driven IT policies to network resources and automatically brokering resources accordingly.” *See* Smith, Abstract. While Smith mentions a network, Smith fails to disclose dedicating a portion of layer one resources to a carrier virtual network, as recited in independent claim 23, that allows a telecommunication network to access in a systemically managed manner the layer one resources of another telecommunication network to provide telecommunications services.

Accordingly, Cison and Smith, individually and in combination, fail to teach or suggest all the limitations of independent claims 1, 13, 14, and 23. Accordingly, for at least the reasons set forth above, the obviousness rejection of claims 1, 13, 14, and 23 should be withdrawn.

Dependent claims 2-4, 9-10, 15, 17, 24, and 26 further define novel features of the claimed embodiments and each depend either directly or indirectly, from one of the independent claims 1, 13, 14, and 23. Accordingly, for at least the reasons set forth above with respect to independent claims 1, 13, 14, and 23, dependent claims 2-4, 9-10, 15, 17, 24, and 26 are believed to be in condition for allowance by virtue of their dependency. *See, In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988); *see also*, MPEP § 2143.01. As such, withdrawal of the obviousness rejection of dependent claims 2-4, 9-10, 15, 17, 24, and 26 is respectfully requested.

C.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 (“Cison”) in view of U.S. Publication No. 2004/0181476 (“Smith”) in further view of U.S. Publication No. 2006/0248205 (“Randle”).

Claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cison et al. (U.S. Publication No. 2002/0004827), in view of Smith

et al. (U.S. Publication No. 2004/0181476), in further view of Randle et al. (U.S. Publication No. 2006/0248205). Applicants submit that a *prima facie* case of obviousness for the rejection of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 under § 103 (a) has not been established.

As Ciscon, Smith, or Randle, either alone or in combination, fail to teach or suggest all of the claimed features of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28, Applicants traverse the rejection. As discussed above, the Ciscon and Smith references fail to teach or suggest all of the claimed features of the rejected independent claims 1, 13, 14, and 23 from which claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 depend.

In addition, Randle also fails to teach or suggest all of the claimed features of the rejected independent claims from which 5, 6, 11-12, 18-19, 21-22, 27, and 28 depend. Although Randle discusses a secure service network, the Randle reference does not teach or suggest converting network information to messages *for transmission* to the network management system of the *accessing* telecommunication network; the network management system of an *accessing* telecommunication network *indirectly managing* the layer one resources of a *dedicating* telecommunication network dedicated to the carrier virtual network; issuing network instructions for layer one resources; or dedicating a portion of layer one resources to a carrier virtual network. Rather, the Randle reference discusses a secure service network. Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 is respectfully requested. Claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 are believed to be in condition for allowance and such favorable action is requested.

D.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 ("Ciscon") in view of U.S. Publication No. 2004/0181476 ("Smith") in further view of U.S. Publication No. 2002/0174207 ("Battou").

Claims 7-8, 16, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciscon et al. (U.S. Publication No. 2002/0004827), in view of Smith et al. (U.S. Publication No. 2004/0181476), in further view of Batou (U.S. Publication No. 2002/0174207). Applicants submit that a *prima facie* case of obviousness for the rejection of claims 7-8, 16, and 25 under § 103 (a) has not been established.

As Ciscon, Smith, or Batou, either alone or in combination, fail to teach or suggest all of the claimed features of claims 7-8, 16, and 25, Applicants traverse the rejection. As discussed above, the Ciscon and Smith references fail to teach or suggest all of the claimed features of the rejected independent claims 1, 13, 14, and 23 from which claims 7-8, 16, and 25 depend.

In addition, Batou also fails to teach or suggest all of the claimed features of the rejected independent claims from which claims 7-8, 16, and 25 depend. Although Randle discusses a hierarchical network management system, the Batou reference does not teach or suggest converting network information to messages *for transmission to* the network management system of the accessing telecommunication network; the network management system of an *accessing* telecommunication network *indirectly managing* the layer one resources of a *dedicating* telecommunication network dedicated to the carrier virtual network; issuing network instructions for layer one resources; or dedicating a portion of layer one resources to a carrier virtual network. Rather, the Batou reference merely discusses a hierarchical network management system. Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claims 7-8,

16, and 25 is respectfully requested. Claims 7-8, 16, and 25 are believed to be in condition for allowance and such favorable action is requested.

E.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 ("Ciscon") in view of U.S. Publication No. 2004/0181476 ("Smith") and U.S. Publication No. 2006/0248205 ("Randle") in further view of U.S. Publication No. 2002/0174207 ("Battou").

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ciscon et al. (U.S. Publication No. 2002/0004827), in view of Smith et al. (U.S. Publication No. 2004/0181476), and Randle et al. (U.S. Publication No. 2006/0248205), in further view of Battou (U.S. Publication No. 2002/0174207). Applicants submit that a *prima facie* case of obviousness for the rejection of claim 20 under § 103 (a) has not been established.

As Ciscon, Smith, Randle, or Batou, either alone or in combination, fail to teach or suggest all of the claimed features of claim 20, Applicants traverse the rejection. As discussed above, the Ciscon, Smith, Randle, and Batou references fail to teach or suggest all of the claimed features of the rejected independent claim 14 from which claim 20 depends. Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claim 20 is respectfully requested. Claim 20 is believed to be in condition for allowance and such favorable action is requested.

### **CONCLUSION**

For at least the reasons stated above, claims 1-28 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned at 816-474-6550 to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 21-0765 referencing Attorney Docket No. 2379/SPRI.105805.

Respectfully submitted,

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/KELLY T. FEIMSTER/

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Kelly T. Feimster  
Reg. No. 57781

JEG/KTF  
SHOOK, HARDY & BACON L.L.P.  
2555 Grand Blvd.  
Kansas City, MO 64108-2613  
816-474-6550